INTERNATIONAL SEARCH REPORT

International Application No PC1/EP2004/012022

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 E04H9/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched (classification system followed by classification symbols)} \\ \mbox{IPC 7} & \mbox{E04H} \end{array}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUM	ENTS CONSIDERED TO BE RELEVANT	
Category °	Citation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 146 979 A (KEETCH WILLIAM A) 1 September 1964 (1964-09-01) column 2, line 23 - column 5, line 60; figures	1-9,12, 31,33
X	WO 00/37823 A1 (BANDO CHEMICAL INDUSTRIES, LTD; MATSUKAWA HIROKAZU; MATSUOKA, HIROSHI) 29 June 2000 (2000-06-29)	1-7,12, 25,26, 28,29, 33,34
A	abstract; figures 1-4	10,11
х	US 3 638 377 A (MARC S. CASPE) 1 February 1972 (1972-02-01)	1,2,6, 10-12, 25,26, 28,29, 33,34
	column 7, line 6 - line 57; figures 4-7	33,34
	-/	

Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
Special categories of cited documents: A document defining the general state of the art which is not considered to be of particular relevance E earlier document but published on or after the international filing date L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O document referring to an oral disclosure, use, exhibition or other means P document published prior to the international filing date but later than the priority date claimed	 "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention. "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone. "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
Date of the actual completion of the international search 25 January 2005	Date of mailing of the international search report 01/02/2005
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Porwoll, H
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		PCT/EP2004	1/ 012022
C.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
X	US 4 330 103 A (THURIES ET AL) 18 May 1982 (1982-05-18) column 2, line 12 - column 4, line 23;		1,2,4,6, 7,11, 18-21, 32,33
	figure		
X	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 06, 30 April 1998 (1998-04-30) & JP 10 038022 A (SHINDO TOMIHARU), 13 February 1998 (1998-02-13) abstract		1,2,7-9, 18-21, 26-29, 33,34
Α	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 03, 31 March 1999 (1999-03-31) & JP 10 329911 A (KAYABA IND CO LTD), 15 December 1998 (1998-12-15) abstract		

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PC17 EP2004/012022

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US 3146979	Α	01-09-1964	NONE		
WO 0037823	A1	29-06-2000	NONE		
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US 4330103	A	18-05-1982	FR CA IN IT JP PT	2456885 A1 1133022 A1 153788 A1 1128761 B 55111022 A 70838 A	12-12-1980 05-10-1982 18-08-1984 04-06-1986 27-08-1980 01-03-1980
JP 10038022	Α	13-02-1998	NONE		
JP 10329911	Α	15-12-1998	NONE		